

P. ENT COOPERATION TREA

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NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents
 United States Patent and Trademark
 Office
 Box PCT
 Washington, D.C.20231
 ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 20 October 2000 (20.10.00)	
International application No. PCT/EP00/02118	Applicant's or agent's file reference LEA33210-WO
International filing date (day/month/year) 10 March 2000 (10.03.00)	Priority date (day/month/year) 16 March 1999 (16.03.99)
Applicant KUNISCH, Franz et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:

26 September 2000 (26.09.00)

☐ in a notice effecting later election filed with the International Bureau on:
2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Manu Berrod Telephone No.: (41-22) 338.83.38
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PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference LEA33210-WO	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/EP00/02118	International filing date (day/month/year) 10/03/2000	Priority date (day/month/year) 16/03/1999
International Patent Classification (IPC) or national classification and IPC C07C233/02		
Applicant BAYER AKTIENGESELLSCHAFT et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.



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3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 26/09/2000	Date of completion of this report 29.03.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Cooper, S Telephone No. +49 89 2399 8323 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP00/02118**

I. Basis of the report

1. This report has been drawn on the basis of *(substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments (Rules 70.16 and 70.17).):*

Description, pages:

1-15 as originally filed

Claims, No.:

1-7 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP00/02118

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	3-7
	No:	Claims	1,2
Inventive step (IS)	Yes:	Claims	3-7
	No:	Claims	1,2
Industrial applicability (IA)	Yes:	Claims	1-7
	No:	Claims	

2. Citations and explanations
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP00/02118

D1: BRIAN E CROSS ET AL: 'Preparation of the 15,6alpha-Lactone from 8beta,13beta -Tetrahydroabietic acid' JOURNAL OF THE CHEMICAL SOCIETY, PERKIN TRANSACTIONS 1, vol. 12, 1981, pages 3158-3160, XP002100081

Section V.

- 1). Claims 1 and 2 lack novelty with respect to compound number 3 on p.3158 of D1.
- 2). No compounds of the formulae given in claim 3 could be located in the available prior art. They are novel.
- 3). The compounds according to claim 3 are anti-fouling agents. No suggestion that they have these properties can be found in the available prior art. They are inventive.
- 4). No indication could be found in the available prior art that the compounds according to claim 1 have anti-fouling properties. Their use as anti-fouling agents (claim 6), a method of controlling fouling using them (claim 4), anti-fouling compositions containing them (claim 6), and the preparation of such compositions (claim 7) are novel and inventive.

Section VIII.

No difference could be found between compounds I1 and I4 (claim 1 and p.3).

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
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BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
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BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
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CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
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CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference LEA33210-WO	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/EP 00/ 02118	International filing date (day/month/year) 10/03/2000	(Earliest) Priority Date (day/month/year) 16/03/1999
Applicant BAYER AKTIENGESELLSCHAFT		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 00/02118

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07C233/02 C09D5/16 C07C331/24 C07C265/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07C C09D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	BRIAN E CROSS ET AL: "Preparation of the 15,6alpha-Lactone from 8beta,13beta-Tetrahydroabietic acid" JOURNAL OF THE CHEMICAL SOCIETY, PERKIN TRANSACTIONS 1, vol. 12, 1981, pages 3158-3160, XP002100081 page 3158 ---	1,2
X	RANE D S ET AL: "NEW STRATEGIES FOR THE HOFMANN REACTION" JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY (INTERNATIONAL JOURNAL OF BIOTECHNICAL AND CHEMICAL PROCESSES), vol. 59, no. 3, 1 March 1994 (1994-03-01), pages 271-277, XP000435976 page 272 --- -/--	1,2

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

3 May 2000

Date of mailing of the international search report

30/05/2000

Name and mailing address of the ISA

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Fax: (+31-70) 340-3016

Authorized officer

Sánchez García, J.M.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 00/02118

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 473 004 A (GOODYEAR TIRE & RUBBER) 4 March 1992 (1992-03-04) claims ----	1-7
A	EP 0 877 061 A (YOSHITOMI FINE CHEMICALS LTD) 11 November 1998 (1998-11-11) page 2 -page 28 ----	1-7
A	WO 91 15546 A (COURTAULDS COATINGS HOLDINGS) 17 October 1991 (1991-10-17) page 7 ----	4-7
A	EP 0 364 271 A (COURTAULDS COATINGS LTD) 18 April 1990 (1990-04-18) column 3 -----	1-7

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 00/02118

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
EP 0473004	A	04-03-1992	US	5134184 A		28-07-1992
			BR	9103571 A		12-05-1992
			CA	2036672 A		28-02-1992
			DE	69117391 D		04-04-1996
			DE	69117391 T		19-09-1996
			JP	4233957 A		21-08-1992

EP 0877061	A	11-11-1998	NO	983388 A		25-09-1998
			CN	1214067 A		14-04-1999
			WO	9727254 A		31-07-1997

WO 9115546	A	17-10-1991	CN	1055940 A		06-11-1991
			DE	69106359 D		09-02-1995
			DE	69106359 T		22-06-1995
			DK	530205 T		06-06-1995
			EP	0530205 A		10-03-1993
			ES	2067228 T		16-03-1995
			GR	3015104 T		31-05-1995
			PT	97319 A,B		31-12-1991

EP 0364271	A	18-04-1990	AU	646754 B		03-03-1994
			AU	2092492 A		15-10-1992
			AU	624637 B		18-06-1992
			AU	4276089 A		26-04-1990
			AU	630114 B		22-10-1992
			AU	4276289 A		26-04-1990
			BR	8905149 A		15-05-1990
			BR	8905176 A		15-05-1990
			CA	2000495 A		13-04-1990
			CA	2000499 A		13-04-1990
			CN	1041771 A		02-05-1990
			CN	1041772 A		02-05-1990
			DE	68920688 D		02-03-1995
			DE	68920688 T		13-07-1995
			DE	68925290 D		08-02-1996
			DE	68925290 T		27-06-1996
			DK	87595 A		03-08-1995
			DK	506989 A		14-04-1990
			DK	507089 A		14-04-1990
			EP	0364272 A		18-04-1990
			EP	0529693 A		03-03-1993
			ES	2067553 T		01-04-1995
			ES	2081545 T		01-03-1996
			FI	953471 A		18-07-1995
			GR	3015105 T		31-05-1995
			GR	3018945 T		31-05-1996
			HK	1000670 A		17-04-1998
			JP	2151672 A		11-06-1990
			JP	2196869 A		03-08-1990
			KR	136283 B		24-04-1998
			MX	172244 B		09-12-1993
			MX	170259 B		12-08-1993
			NO	179413 B		24-06-1996
			NO	894080 A		17-04-1990
			NO	943208 A		17-04-1990
			PT	91982 A,B		30-04-1990
			PT	91983 A,B		30-04-1990
			US	5116407 A		26-05-1992

Information on patent family members

PCT/EP 00/02118

17-08-1993
22-06-1994